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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,928	09/30/2003	Hideyuki Shimomura	27A 3478	5148

3713 7590 12/08/2004

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EXAMINER

FETSUGA, ROBERT M

ART UNIT	PAPER NUMBER
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3751

DATE MAILED: 12/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/674,928

Applicant(s)

SHIMOMURA, HIDEYUKI

Examiner

Robert M. Fetsuga

Art Unit

3751

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 3751

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

The current status and any other pertinent information concerning the priority document(s) is respectfully requested (MPEP 2001.06(a) and 37 CFR 1.56).

2. The disclosure is objected to because of the following informalities: Page 5, line 22, "7a" apparently should be --7--; and page 6, line 13, "7A" apparently should be --7--.

Appropriate correction is required.

3. Claims 1, 3 and 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is unclear as to whether the "valve mechanism" is intended to be part of the claimed combination since structure of the "seal structure" is defined as being connected thereto (lns. 4-5), but no positive structural antecedent basis therefor has been defined. Claims 3 and 4 are similarly indefinite.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

Art Unit: 3751

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Fye.

The Fye reference (Figs. 4 and 5) discloses a seal structure comprising: a metal seat ring 34'; and a valve mechanism including a main body 12 having a flow channel 14, and a plate 16, as claimed.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Grove et al.

The Grove et al. (Grove) reference (Figs. 5-7) discloses a seal structure comprising: a metal seat ring 112; a valve mechanism/knife gate including a main body 91 having a flow channel 92, 93, and a plate 94; a set ring 111; and elastomeric ring sheets 114, 122, as claimed.

6. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fye and Vanderburg.

Art Unit: 3751

The Fye reference (Figs. 1-3) discloses a seal structure comprising: a seat ring 34 including a flange 36; a valve mechanism/knife gate including a main body 12 having a flow channel 14 and a step-like portion 66 with a first wall 74 and a second vertical wall (at 40), and a plate 16; a set ring 50; and a second elastomeric ring sheet 62. The seat ring 34 is preferably non-metal (col. 3 lns. 5-6), however, Fye also teaches it is sometimes preferable to construct such seals of metal (col. 4 lns. 36-37). Therefore, Fye teaches all claimed elements except for the provision of a first elastomeric ring sheet.

Although the seal structure of the Fye valve does not include a first elastomeric ring sheet, as claimed, attention is directed to the Vanderburg reference which discloses an analogous valve which further includes multiple elastomeric ring sheets (abs. lns. 7-9). Therefore, in consideration of Vanderburg, it would have been obvious to one of ordinary skill in the art to associate a first elastomeric ring sheet with the Fye valve in order to facilitate sealing. Furthermore, note the vertical wall 36 taught by Vanderburg.

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fye and Vanderburg as applied to claim 4 above, and further in view of Sparks.

Art Unit: 3751

Although the seal structure of the Fye valve does not include a seal packing, as claimed, attention is directed to the Sparks reference (Fig. 1) which discloses an analogous valve which further includes a seal structure (Fig. 2). Therefore, in consideration of Sparks, it would have been obvious to one of ordinary skill in the art to associate a seal structure with the Fye valve in order to facilitate sealing.

8. Applicant is referred to MPEP 714.02 and 608.01(o) in responding to this Office action.

9. Any inquiry concerning this communication should be directed to Robert M. Fetsuga at telephone number 571/272-4886 who can be most easily reached Monday through Thursday.



Robert M. Fetsuga
Primary Examiner
Art Unit 3751